



United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Florida Ecological Services Office
1339 20th Street
Vero Beach, Florida 32960



May 30, 2019

Andrew D. Kelly, Colonel
U.S. Army Corps of Engineers
Post Office Box 4970
Jacksonville, Florida 32232-0019

Service Consultation Code: 04EF2000-2016-F-0170
Corps Application Number: SAJ-2015-02626 (SP-MMB)
Date Received: February 1, 2016
Formal Consultation Initiation Date: February 14, 2019
Project: Boardwalk Construction
Applicant: Texas Holdem, LLC
County: Lee

Dear Colonel Kelly:

This document transmits the U.S. Fish and Wildlife Service's (Service) Biological Opinion to the U.S. Army Corps of Engineers (Corps) based on our review of the construction of a boardwalk across a lagoon/dune system on Fort Myers Beach, Little Estero Island, Lee County, Florida (Project). The Corps determined that the Project may affect, and is likely to adversely affect the threatened North Atlantic Distinct Population Segment (DPS) of the green sea turtle (*Chelonia mydas*), the endangered hawksbill sea turtle (*Eretmochelys imbricata*), the endangered Kemp's ridley sea turtle (*Lepidochelys kempii*), the endangered leatherback sea turtle (*Dermochelys coriacea*), and the threatened Northwest Atlantic Ocean DPS of the loggerhead sea turtle (*Caretta caretta*); and may affect, but is not likely to adversely affect the threatened piping plover (*Charadrius melodus*) and the threatened red knot (*Calidris canutus rufa*). For the purposes of this document, the five identified sea turtles will be referred to collectively as sea turtles. This document is provided in accordance with section 7 of the Endangered Species Act of 1973, as amended (Act) (87 Stat. 884; 16 U.S.C. 1531 *et seq.*).

The Service and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) share Federal jurisdiction for sea turtles under the Act. The Service has responsibility for sea turtles on the nesting beach and the NOAA Fisheries has jurisdiction for sea turtles in the marine environment. Our analysis in this document will only address activities that may impact nesting sea turtles, their nests and eggs, and hatchlings as they emerge from the nest and crawl to the sea. Please note the provisions of this consultation do not apply to sea turtles in the marine environment, such as swimming juvenile and adult sea turtles or loggerhead critical habitat in the marine environment. If applicable, you are required to consult with the NOAA Fisheries on this Project. For further information on Act compliance

with the NOAA Fisheries, please contact Karla Reece, Acting Chief of the Interagency Cooperation Branch, by e-mail at karla.reece@noaa.gov or by phone at 727-824-5348.

This Biological Opinion is based on information provided in the Corps' February 1, 2016, letter and February 4, 2016, Public Notice; information provided by the Texas Holdem, LLC (Applicant); and supplemental documents from the Florida Fish and Wildlife Conservation Commission, NOAA Fisheries, and Collins Law Group. A complete administrative record of this consultation is on file at the South Florida Ecological Services Office, Vero Beach, Florida.

Consultation History

On February 1, 2016, the Service received a letter from the Corps dated February 1, 2016, and a copy of the Public Notice dated February 4, 2016, requesting formal consultation concerning the proposed Project in Lee County, Florida.

On February 12, 2016, the Service sent an email to the Corps informing them that the Service had received their February 1, 2016, letter requesting formal consultation.

On April 14, 2017, the Service sent an email to the Corps requesting additional information.

On July 12, 2017, the Service received an email from the Corps in response to our request for additional information.

On August 23, 2017, the Service emailed the Corps with a second request for additional information.

On September 25, 2017, the Service received an email from the Corps in response to our second request for additional information.

On September 29, 2017, the Service emailed the Corps with a third request for additional information.

On August 24, 2018, the Service received an email from the Corps with a partial response to our third request for additional information, a copy of the Florida Department of Environmental Protection's permit, and copies of two petitions against the proposed Project.

On August 27, 2018, the Service emailed the Collins Law Group to inquire about the status of Florida Audubon Society and Town of Fort Myers Beach petitions.

On August 29, 2018, the Service received an email from the Corps with our requested 5 year sea turtle study along Estero Island.

On August 30, 2018, an extensive request for information was forwarded to the Florida Fish and Wildlife Conservation Commission (FWC).

On August 31, 2018, the Service received an email from the FWC with a partial response to our request for additional information.

On September 13, 2018, the Service emailed the FWC with a second request for additional information.

On November 30, 2018, FWC provided the 2018 Little Estero Island sea turtle nesting data.

On February 14, 2019, the Service completed their review of the proposed Project and initiated formal consultation with the Corps concerning the potential effects of the proposed Project on sea turtles; and informal consultation on piping plovers and red knots.

BIOLOGICAL OPINION

This Biological Opinion provides the Service's opinion as to whether the proposed Project is likely to jeopardize the continued existence of sea turtles or result in the destruction or adverse modification of designated critical habitat (50 CFR § 402.02).

ANALYTICAL FRAMEWORK FOR THE JEOPARDY AND ADVERSE MODIFICATION DETERMINATIONS

Jeopardy determination

Section 7(a)(2) of the Act requires that Federal agencies ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of listed species.

"Jeopardize the continued existence of" means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species (50 CFR § 402.02).

The jeopardy analysis in this Biological Opinion relies on four components: 1) the Status of the Species, which describes the range-wide condition of the species, the factors responsible for that condition, and its survival and recovery needs; 2) the Environmental Baseline, which analyzes the condition of the species in the action area, the factors responsible for that condition, and the relationship of the action area to the survival and recovery of the species; 3) the Effects of the Action, which determine the direct and indirect impacts of the proposed Federal action and the effects of any interrelated or interdependent activities on the species; and 4) the Cumulative Effects, which evaluate the effects of future, non-federal activities in the action area on the species.

In accordance with policy and regulation, the jeopardy determination is made by evaluating the effects of the proposed federal action in the context of the current status of the species, taking into account any cumulative effects, to determine if implementation of the proposed action is likely to cause an appreciable reduction in the likelihood of both the survival and recovery of the species in the wild.

DESCRIPTION OF PROPOSED ACTION

The Applicant proposes to construct an elevated boardwalk approximately 5 feet (ft) wide by 298.3 ft long to provide beach access for two single-family residences located along Fort Myers Beach on Little Estero Island in Lee County, Florida (Figure 1). The proposed boardwalk will be approximately 5 ft above the mean high water line (MHWL). No mangroves will be removed, but some will be trimmed to position the boardwalk on top of the mangroves. In addition, an extra pile span will be used so as not to disturb the mangrove roots. All equipment will be hand operated. No large machinery including track hoes or barges will be used during construction activities. All piles will be jetted into position. The staging area will be located along the west side of the residences, and there will be no storage or stockpiling of tools or materials (e.g., lumber, pilings, debris) within wetlands, on dune vegetation, along the shoreline or elsewhere within State waters. All material and vegetative debris will be removed to a self-contained upland disposal area with no stockpiling or debris within wetland areas.

Minimization measures

In order to minimize any potential impacts to piping plovers, red knots, adult female sea turtles, and/or sea turtle hatchlings, the Applicant has integrated the following criteria into the proposed Project:

1. Project location has been reconfigured so as not located in the Little Estero Island Critical Wildlife Area;
2. Construction has been restricted to the months between September 1 and February 14 so beach nesting birds will not be disturbed;
3. No construction, operation, transportation or storage of equipment or materials is authorized on marine turtle nesting habitat during the nesting season (May 1 through October 31);
4. No permanent lighting on the boardwalk is authorized;
5. All vehicles will be operated in accordance with the FWC's Best Management Practices for Operating Vehicles on the Beach (http://www.myfwc.com/media/153118/beach_drive_flyer_clr.pdf). The vehicle shall be operated at less than 6 mph and run at or below the high-tide line. All personnel associated with the proposed Project shall be instructed about the potential presence of protected species and the need to avoid take (including disturbance) of these protected species;
6. The seaward portion of the boardwalk that is 3 ft or less above MHWL will be enclosed to prevent sea turtle entrapment; and
7. To offset unavoidable impacts that will occur from the proposed Project, the Applicant will purchase 0.01 acres (ac) of forested saltwater credits and 0.01 ac of herbaceous saltwater credits from the Little Pine Mitigation Bank.

Action Area

The action area for the Project is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action. The Service identifies the action area to include the boardwalk corridor which is located in a marine wetland habitat

with onsite vegetation consisting of a scrub mangrove system with associated lagoons and dunes, and staging area. The Project is located along the Gulf of Mexico, Little Estero Island, Fort Myers Beach, Lee County, Florida (latitude 26.40383 and longitude -81.88977).

SPECIES NOT LIKELY TO BE ADVERSELY AFFECTED BY THE PROPOSED ACTION

Piping plover

The proposed Project is located within the piping plover consultation area, but is not located in piping plover critical habitat. Wintering piping plovers prefer coastal habitats that include sand spits, islets, tidal flats, shoals, sandbars that are often associated with inlets. Additionally, sandy mud flats, ephemeral pools, and overwash areas are considered primary foraging habitats. The action area contains in part some of the above referenced habitat types. According to our Geographic Information System (GIS) database piping plovers have not been documented in the action area. The closest documented piping plover was approximately 766 ft north of the action area in 2006. At most, the construction and presence of the proposed boardwalk may temporarily flush piping plovers a short distance to the north or south. Consequently, the Corps has determined that the proposed Project may affect, but is not likely to adversely affect the piping plover, and the Service concurs with this determination.

Red knot

Red knots may use the proposed action area during winter and migration periods. In Florida, red knots are commonly found along sandy, gravel, or cobble beaches, tidal mudflats, salt marshes, shallow coastal impoundments, mangrove and brackish lagoons. Red knots forage along sandy beaches during spring and fall migration throughout Florida. To date, critical habitat has not been proposed or designated for the red knot. According to our GIS database red knots have not been documented in the action area. The closest documented red knots were approximately 327 ft south and 815 ft north of the action area in 2011 and 2010, respectively. At most, the construction and presence of the proposed boardwalk may temporarily flush red knots a short distance to the north or south. Consequently, the Corps has determined that the proposed Project may affect, but is not likely to adversely affect the red knot, and the Service concurs with this determination.

STATUS OF THE SPECIES/CRITICAL HABITAT

Sea turtles

Please see the *Statewide Programmatic Biological Opinion* (Service 2015) for the current Status of the Species for sea turtles and terrestrial loggerhead sea turtle designated critical habitat.

Summary of threats to the species/critical habitat

Anthropogenic factors that impact hatchlings and adult female turtles on land, or the success of nesting and hatching include: beach erosion; armoring and nourishment; artificial lighting; sound stimuli; beach cleaning; increased human presence; recreational beach equipment; beach driving; coastal construction and fishing piers; entrapment/physical obstruction; exotic dune and beach vegetation; predation; and poaching. An increased human presence at some nesting beaches or close to nesting beaches has led to secondary threats such as the introduction of exotic fire ants (*Solenopsis invicta*), feral hogs (*Sus scrofa*), dogs (*Canis familiaris*), and an increased presence of native species (e.g., raccoons [*Procyon lotor*], armadillos [*Dasypus novemcinctus*], and opossums [*Didelphis virginiana*]), which raid nests and feed on turtle eggs. Of the above listed threats to sea turtles, the effects of entrapment and predation are relevant to the proposed Project.

Entrapment/physical obstruction

Along the beach, adult female sea turtles and hatchlings may be presented with a variety of obstacles (e.g., furniture; rock groins; pilings associated with piers, dune crossovers, and boardwalks; recreational equipment, etc.), all of which have the potential to entrap or act as a physical obstruction. Additionally, such obstacles could interfere with the egress and ingress of adult female sea turtles at nesting sites where they may proceed around it successfully, abort nesting for that night, or move to another section of beach to nest. All of these activities may cause an increase in energy expenditure. In addition, these obstacles could adversely affect sea turtle hatchlings by serving as a barrier or obstruction thereby delaying offshore migration, and depleting or increasing expenditure of the “swim frenzy” energy critical to reach the relative safety of offshore development areas (Salmon and Wyneken 1987; Wyneken et al. 1990; Witherington 1991). The first hour of a hatchling’s life is precarious and predation is high, but threats decrease as hatchlings distance themselves from the natal beach (Stancyk 1995; Pilcher et al. 2000). Delays in hatchling migration (both on the beach and in the water) can cause added expenditures of energy and an increase of time spent in predator rich nearshore water and along the beach.

Predation

Predation of sea turtle eggs and hatchlings by native and introduced species occurs on almost all nesting beaches. Predation by a variety of predators can considerably decrease sea turtle nest hatching success. The most common predators in the southeastern U.S. are ghost crabs (*Ocypode quadrata*), raccoons (*P. lotor*), feral hogs (*Sus scrofa*), foxes (*Urocyon cinereoargenteus* and *Vulpes vulpes*), coyotes (*Canis latrans*), armadillos (*D. novemcinctus*), and fire ants (*S. invicta*) (Dodd 1988; Stancyk 1995). In the absence of nest protection programs in a number of locations throughout the southeast U.S., raccoons may depredate up to 96 percent of all nests deposited on a beach (Davis and Whiting 1977; Hopkins and Murphy 1980; Stancyk et al. 1980; Talbert et al. 1980; Schroeder 1981; Labisky et al. 1986).

ENVIRONMENATAL BASELINE

Status of the species/critical habitat within the action area

Sea turtles

The proposed Project is located within the Peninsular Florida Recovery Unit (PFRU). The PFRU averages 95,769 nests per year (based on 2014 to 2018 nesting data; FWRI 2019). Of the available nesting habitat within the PFRU, the Project will occur on approximately 250 square ft of available nesting beach.

Green sea turtle

Of the counties along the west coast of Florida, Lee County supported the third highest nesting of green sea turtles with 9 nests (0.17 nests per mile [mi]) in 2018 (FWC 2019). In 2018, green sea turtles made 1 false crawl in Lee County. Along the shoreline which the Project area lies within, green sea turtles laid zero nests and made no false crawls in 2018.

Hawksbill sea turtle

Hawksbill sea turtle nesting and false crawls have not been documented in Lee County. The majority of nesting surveys conducted in Florida occur during the morning hours and are based on interpretation of the tracks left by the turtles as they ascend and descend the beach; the turtles themselves are rarely observed. Because hawksbill and Kemp's ridley sea turtle tracks are difficult to discern from loggerhead sea turtle tracks, it is likely that nesting by both species is underreported (Meylan et al. 1995).

Kemp's ridley sea turtle

Kemp's ridley sea turtle nesting and false crawls have not been documented in Lee County. The majority of nesting surveys conducted in Florida occur during the morning hours and are based on interpretation of the tracks left by the turtles as they ascend and descend the beach; the turtles themselves are rarely observed. Because hawksbill and Kemp's ridley sea turtle tracks are difficult to discern from loggerhead sea turtle tracks, it is likely that nesting by both species is underreported (Meylan et al. 1995).

Leatherback sea turtle

All fourteen west coast counties, including Lee County, recorded zero leatherback sea turtle nests and false crawls in 2018 (FWC 2019).

Loggerhead sea turtle

Of the counties along the west coast of Florida, Lee County supported the second highest nesting of loggerhead sea turtles, with 2,059 nests (39.50 nests per mi) in 2018 (FWC 2019). In 2018, loggerhead sea turtles made 2,683 false crawls in Lee County. Along approximately 70 ft of

shoreline in the vicinity of Project area, loggerhead sea turtles laid 4 nests and made 2 false crawls in 2018.

Climate Change

Our analyses under the Act include consideration of observed or likely environmental effects related to ongoing and projected changes in climate. As defined by the Intergovernmental Panel on Climate Change (IPCC), “climate” refers to average weather, typically measured in terms of the mean and variability of temperature, precipitation, or other relevant properties over time; thus “climate change” refers to a change in such a measure which persists for an extended period, typically decades or longer, due to natural conditions (*e.g.*, solar cycles) or human-caused changes in the composition of the atmosphere or in land use (IPCC 2013, p. 1450). Detailed explanations of global climate change and examples of various observed and projected changes and associated effects and risks at the global level are provided in reports issued by the IPCC (2014 and citations therein). Information for the U.S. at national and regional levels is summarized in the National Climate Assessment (Melillo et al. 2014 entire and citations therein; see Melillo et al. 2014, pp. 28-45 for an overview). Because observed and projected changes in climate at regional and local levels vary from global average conditions, rather than using global scale projections, we use “downscaled” projections when they are available and have been developed through appropriate scientific procedures, because such projections provide higher resolution information that is more relevant to spatial scales used for analyses of a given species and the conditions influencing it. (See Melillo et al. 2014, Appendix 3, pp. 760-763 for a discussion of climate modeling, including downscaling). In our analysis, we use our expert judgment to weigh the best scientific and commercial data available in our consideration of relevant aspects of climate change and related effects.

Climatic changes in Florida could amplify current land management challenges involving habitat fragmentation, urbanization, invasive species, disease, parasites, and water management. Global warming will be a particular challenge for endangered, threatened, and other “at risk” species. It is difficult to estimate, with any degree of precision, which species will be affected by climate change or exactly how they will be affected. The Service will use Strategic Habitat Conservation planning, an adaptive science-driven process that begins with explicit trust resource population objectives, as the framework for adjusting our management strategies in response to climate change (Service 2006). As the level of information increases relative to the effects of global climate change on sea turtles and its designated critical habitat, the Service will have a better basis to address the nature and magnitude of this potential threat and will more effectively evaluate these effects to the range-wide status of sea turtles.

EFFECTS OF THE ACTION

Adverse effects

Sea turtles

Entrapment/physical obstruction

The seaward-most portion of the boardwalk has the potential to interfere with the egress and ingress of adult female sea turtles at nesting sites where they may proceed around it successfully, abort nesting for that night, or move to another section of beach to nest. All of these changes in nesting behavior would cause an increase in energy expenditure. In addition, the boardwalk may adversely affect sea turtle hatchlings by serving as a barrier or obstruction thereby delaying offshore migration, causing an increase in energy expenditure, and making them more vulnerable to terrestrial and avian predators.

Predation

The proposed boardwalk may act as a corridor for potential predators such as raccoons, feral cats, rats, dogs, etc., along the dune/lagoon interface. This would be a new corridor for these predators which would not have existed prior to construction of the proposed boardwalk. In addition, although handrails have been excluded from the proposed boardwalk design, the boardwalk in and of itself, still provides an area for raptor predators to perch. All of these predators would be a potential threat to sea turtle hatchlings and eggs.

Interrelated and interdependent actions

An interrelated activity is an activity that is part of the proposed action and depends on the proposed action for its justification. An interdependent activity is an activity that does not have independent utility apart from the action under consultation. Interrelated or interdependent actions are not expected to result from the proposed Project.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local, or private actions that are reasonably certain to occur in the action area considered in this Biological Opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act. The Service is not aware of any cumulative effects in the action area.

CONCLUSION

After reviewing the current status of the five sea turtle species, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects, it is the Service's biological opinion that the Project as proposed, is not likely to jeopardize the continued existence of any of the sea turtle species. We have reached this conclusion because: 1) boardwalk

construction would directly impact approximately 250 square ft of potential nesting beach; and 2) the permanent placement of the boardwalk is expected to affect nesting, hatching, and hatchling emerging success within a minimum of 250 square ft for the life of the structure. Although a variety of factors, including some that cannot be controlled can influence how a boardwalk may affect sea turtle nesting, hatching, and hatchling emerging success, measures can be implemented to minimize adverse impacts to sea turtles. Take of sea turtles would be minimized by implementation of the minimization measures outlined in the Project description. These measures have been shown to help minimize adverse impacts to sea turtles.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to, and not intended as part of the agency action, is not considered to be prohibited taking under the Act provided such taking is in compliance with the terms and conditions of this incidental take statement.

The terms and conditions described below are nondiscretionary and must be undertaken by the Corps so they become binding conditions of any grant or permit issued to the Applicant, as appropriate, for the exemption in section 7(o)(2) to apply. The Corps has a continuing duty to regulate the activity covered by this incidental take statement. If the Corps 1) fails to assume and implement the terms and conditions; or 2) fails to require the Applicant to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, the Applicant must report the progress of the action and its impact on the species to the Service as specified in the Incidental Take Statement [50 CFR § 402.14(i)(3)].

AMOUNT OR EXTENT OF TAKE ANTICIPATED

The Service has reviewed the biological information for sea turtles, information provided by the FWC, and other available information relevant to this action. The proposed Project is expected to incidentally result in take of sea turtles in the form of: 1) behavior modification and/or misdirection of nesting sea turtles or hatchling turtles within the seaward-most boundary of the proposed Project, as they emerge from the nest and crawl to the water as a result of boardwalk pilings; 2) behavior modification of nesting females due to human-related activities associated with the boardwalk, and 3) an increase in hatchling mortality due to predators associated with the boardwalk.

Incidental take is anticipated for only the 250 square ft of beach that has been identified for the seaward-most portion of the proposed Project. The Service anticipates incidental take of sea turtles will be difficult to detect for the following reasons: 1) turtles nest primarily at night and all nests are not found because [a] natural factors, such as rainfall, wind, and tides may obscure crawls; and [b] human-caused factors, such as pedestrian and vehicular traffic, may obscure crawls, and result in nests being destroyed because they were missed during a nesting survey and nest mark and avoidance program; and 2) the total number of hatchlings per undiscovered nest is unknown.

The Service finds that no more than 250 square ft of sea turtle nesting habitat will be incidentally taken as a result of the proposed action. If, during the course of the action, this level of incidental take is exceeded, such incidental take represents new information requiring reinitiation of consultation and review of the reasonable and prudent measures provided.

EFFECT OF THE TAKE

In the accompanying Biological Opinion, the Service determined this level of anticipated take is not likely to result in jeopardy to sea turtles.

REASONABLE AND PRUDENT MEASURES

When providing an incidental take statement, the Service is required to provide: 1) reasonable and prudent measures it considers necessary or appropriate to minimize the take; 2) terms and conditions that must be complied with to implement the reasonable and prudent measures; and 3) procedures to be used to handle or dispose of any individuals taken. The Service finds the Applicant has already designed the Project to minimize take resulting from the action as described in the *Description of the Proposed Action* and *Minimization Measures* sections of this Biological Opinion. Therefore, additional reasonable and prudent measures and their implementing terms and conditions are not necessary to reduce take of sea turtles resulting from the action and will not be provided.

MONITORING AND REPORTING REQUIREMENTS

Pursuant to 50 CFR § 402.14(i)(3), the Corps must provide adequate monitoring and reporting to determine if the amount or extent of take is approached or exceeded. Upon Project completion, the Applicant must provide a report to the Service demonstrating that no more than 250 square ft of sea turtle nesting habitat was impacted by the Project

DISPOSITION OF DEAD OR INJURED SPECIMENS

Upon locating a dead, injured, or sick threatened or endangered species, initial notification must be made to the nearest Service Law Enforcement Office: 20501 Independence Blvd., Groveland, Florida 34736; 352-429-1037, as well as the FWC's Wildlife Alert number; 888-404-3922. Secondary notification should be made to the biologist identified below at the South Florida Ecological Service Office, 772-562-3909. Care should be taken in handling sick or injured specimens to ensure effective treatment and in the handling of dead specimens to

preserve biological material in the best possible state for later analysis as to the cause of death. In conjunction with the care of sick or injured specimens, or preservation of biological materials from a dead animal, the finder has the responsibility to carry out instructions provided by Law Enforcement to ensure that evidence intrinsic to the specimen is not unnecessarily disturbed.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. The Service recommends the following:

1. Educational signs should be placed where appropriate at beach access points explaining the importance of the area to sea turtles and/or the life history of sea turtle species that nest in the area, and similar information for shorebirds that nest, forage, and/or roost in the area.
2. Develop a Predator Control Plan to minimize potential effects to both sea turtle hatchlings; and nesting, foraging, and roosting shorebirds.
3. Prohibit unleashed dogs on the beach during the time of year when piping plovers and red knots are present.
4. Protect wrack by ceasing or reducing wrack removal during beach-cleaning activities.
5. Prohibit the introduction of invasive plant species that degrade beach and dune habitats, and require removal of those currently existing.

In order for the Service to be kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, the Service requests notification of the conservation recommendations carried out.

REINITIATION NOTICE

This concludes formal consultation on the action(s) outlined in the Project consultation request. As written in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Corps involvement or control over the action has been retained (or is authorized by law) and if: 1) the amount or extent of incidental take is exceeded (250 square ft of sea turtle nesting habitat); 2) new information reveals effects of the Corps action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; 3) the Corps action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or 4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

Thank you for your cooperation and effort in protecting federally listed species and fish and wildlife resources. If you have any questions regarding this project, please contact Jeff Howe at 772-469-4283.

Sincerely yours,



Roxanna Hinzman
Field Supervisor
South Florida Ecological Services Office

cc: electronic only

Corps, Fort Myers, Florida (Steven Rabney)

DEP, Tallahassee, Florida (Greg Garis)

EPA, West Palm Beach, Florida (Duncan Powell)

FWC, Tallahassee, Florida (FWC-CPS, Robbin Trindell, Luke Davis)

NOAA Fisheries, St. Petersburg, Florida (Mark Sramek, Dennis Kleem)

Service, Key Largo, Florida (Kevin Kalasz)

Service, Naples, Florida (Kim Dryden)

Service, St. Petersburg, Florida (Anne Marie Lauritsen)

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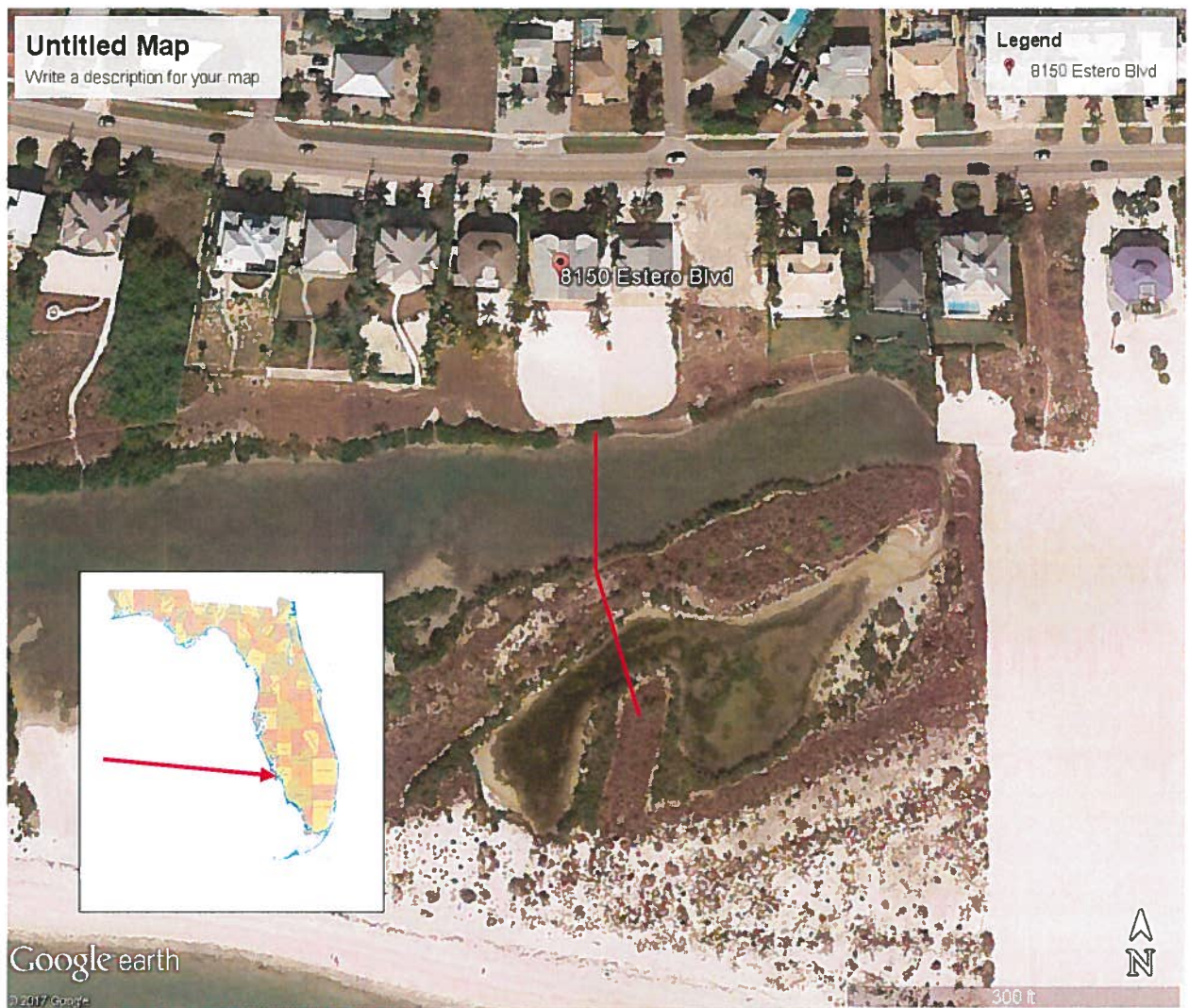


Figure 1. Location of the proposed boardwalk along Little Estero Island, Lee County, Florida.